

## **Bandwidth Matching Device and Method for Operating the Same**

### **ABSTRACT OF THE DISCLOSURE**

Broadly speaking, a bandwidth matching device is provided for transforming a  
5 number of incoming data streams each having a first bandwidth into an outgoing data  
stream having a second bandwidth. More specifically, the bandwidth matching device  
provides an assembler and a disassembler. The assembler incorporates a stepped  
arrangement of cells for transforming the number of incoming data streams having a  
given bandwidth into an outgoing data stream having a larger bandwidth, wherein each  
10 portion of the outgoing data stream represents a concatenation of a number of portions of  
each of the incoming data streams. As a complement to the assembler, the disassembler  
uses a stepped arrangement of cells to transform the concatenated output generated by the  
assembler back into the number of incoming data streams originally received by the  
assembler.